TS1

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Case Number : T 06/ 82

DECISION
of the Technical Board of Appeal 3.2.2
of 7 December 1982

Appellant: Brimec (U.K.) Ltd, Bristol, Avon (GB)

Representative: Forrester & Boehmert, München 22, Widenmayerstr. 5 (BRD)

Decision under appeal: Decision of the Examining Division 077 of 20 July 1981 to reject European Patent Application No. 78 101 382.6

Composition of the Board:

Chairman: G. Andersson

Member: P. Ford

Member: K. Schügerl

Facts and Submissions

I. Application No. 78 101 382.6, filed on 16 November 1978 and published under No. 000 2056, was refused by a decision of Examining Division 077 dated 20 July 1981. The stated ground for the refusal was that the subject matter of claim 1 did not involve an inventive step having regard to US-A-4 058 231.

II. Against the decision the applicant lodged an appeal on 21 September 1981. The appeal fee and the statement setting out the grounds of appeal were received in due time.

III. The appellant submitted a "Statutory Declaration" by the inventor of the applicant's construction and the "Operators Manual", dealing with the construction according to US-A-4 058 231.

In the course of the written procedure before the Board of Appeal, US-A-2 534 156 and DE-A-1 953 822 were cited as further references.

IV. Finally, the Appellant submitted an amendment to the description (new pages 1 to 4) and new claims 1 to 5, claim 1 reading:

"A combination of a vehicle and a demountable body of the kind wherein the vehicle has a support which is movable between a horizontal position and an inclined position in which the front end thereof is higher than the rear end thereof, and means for mounting the body on the support and for demounting the body therefrom, the mounting and demounting means comprising an endless flexible linear element which extends around drive formations mounted on the support at the front end thereof

and around drive reversing means mounted on the rear end of the support and which carries a pushing element, an ended flexible linear element which is provided at one end thereof with attachment means for connection to conncting means on the body, and bi-directionally movable motor arrangement operable to cause the ended element to draw the body on to the rear end of the support and along the latter into a mounted position and to cause movement of the endless element, thus causng the pushing element of the endless element to push the body along the support and off the rear end of the latter, characterised in that the ended element is separate from the endless element and is engaged with drive formations mounted on the support at the front end thereof alongside the front drive formations of the endless element, a portion of the ended element extending from its drive formations alongside the endless element towards the rear end of the support with the attachment means provided at its rear end, and that the connecting means of the body has two parts disposed side-by-side for engagement respectively by the attachment means of the ended element for mounting of the body on the support and by the pushing element of the endless element for demounting of the body."

The new dependent claims 2 to 5 differ from the version on which the decision was based, by only slight modifications.

Additionally, the appellant requests correction of minor errors in the description, page 5-11, and in the drawings as filed.

V. Stressing the inventiveness of the claimed subject matter, the Appellant requests that the decision of the Examining Division be set aside and the patent be granted on the basis of the new claims.

Reasons for the Decision

1. The appeal complies with Articles 106 - 108 and Rule 64 EPC; it is therefore admissible.

2. The subject matter of the new claims 1 to 5 and of the new pages 1 to 4 does not extend beyond the content of the application as filed. The amendments are therefore allowable under the terms of Article 123 (2) EPC.

3. The features of the pre-characterising part of claim 1 are known from US-A-4 058 231. According to the characterising portion, the subject matter of claim 1 differs from this prior art by a number of features, which may be summarised in the main by the fact that the endless and the ended chain are separated, lie alongside and are driven by separate drive formations, as distinguished from the construction disclosed in US-A-4 058 231 where the ended chain is attached to the endless chain, only the endless chain being driven by a single drive formation and the lines of force of the ended and the endless chain coincide.

4. The last-named feature is a necessary consequence of the design concept of the US document. Any spacing apart of the two lines of force would introduce - via the attachment - heavy strains in the endless element, with consequent risk of rendering the system inoperable. The US document proposes therefore two ways in which the lines of force can be made coincident: namely, first, a single endless element flanked by two chains of the ended element connected in such a way that a U-shaped cross section results (column 2 line 54) and, second, a single ended element connected to two endless chains (column 3, line 15), so that the ended element lies between the two

endless chains.

5. Consequently, US-A-4 058 231 gives no indication to the skilled person to arrange the chains "alongside", a term, which according to the description and the drawings of the application, has to be interpreted as "the chains being positioned in such as way that the pulling lines of the ended and the endless chains are spaced apart horizontally".

6. Incidentally, the arrangement of US-A-4 058 231 presupposes also the ended and the endless chain running on the front wheel such that the two chains have the same radius (column 2 line 61 of US-A-4 058 231); this however, cannot be achieved by providing the front wheel with two rims side by side and consequently arranging the pulling lines of the chains side by side, as the Examining Division stated in the decision, for this would, due to the eccentricity of the points of attack of the forces, result in critical strains in the attachment piece and the endless chain, as already stated above under paragraph 4.

7. Without mentioning that, the skilled person would not envisage to drive directly the ended chain by a sprocket wheel in the mounted or almost mounted position of the container, for this would imply that the pulling forces would be transferred by the first sprocket wheel to the endless chain, by the attachment piece from the endless chain to the ended chain, and also by the second sprocket wheel to the ended chain. Such a construction would be theoretically statically indeterminate. It would be considered as highly inadvisable by the normally experienced engineer in view of the necessarily high degreee of backlash, the heavy duty usage and the unpredictable deformations.

8. Since the practitioner will not be induced by the teachings of US-A-4 158 231 to take the steps mentioned before and also considered in the decision under appeal, he will equally not be led to take the next step, namely to do away altogether with the attachment of the ended chain to the endless chain. To judge from US-A-4 058 231 alone, the subject matter of claim 1 cannot be said to be an obvious modification of a known construction.

9. However, two completely separated drive arrangements, namely a winch for pulling the container onto and a piston/cylinder unit for pushing the container from the platform, has been disclosed in US-A- 2 534 156. The question therefore remains to be answered whether this document would make the subject matter of claim 1 obvious.

10. Certainly, the practitioner will learn from US-A-2 534 156 that in a special case which has to be considered as lying rather far away from the solution as defined in claim 1 of the application, the pulling and the pushing mechanisms are separated. But even if he deduces from this specific example the general idea of separation, this idea, when applied to the disclosure of US-A-4 058 231, will not lead in an obvious manner to the solution of the application. For the mere instruction to separate the two mechanisms leaves room for many variations of the construction according to US-A-4 058 231. It would be more obvious to maintain the principle of

arranging the pulling and the pushing elements in the same vertical plane, one above the other, a feature which is common to the disclosures of the US-A-4 058 231 and US-A-2 534 156. To arrange the two elements side by side and, consequently, to provide the two parts of the connecting means of the body side by side, must be considered as a rather unexpected departure from the teachings of the prior art.

11. DE-A-1 953 822, the "Statutory Declaration" and the "Operators Manual" need not to be considered further, since these documents do not contain any additional information which could influence the above reasonings.

12. Summarising, the technical problem of the application, namely to overcome the disadvantages of the prior art according to US-A-4 058 231, is solved by the features of the characterising portion of claim 1 in an unobvious manner, thus involving an inventive step . Claim 1 and the dependent claims 2 to 5, which concern particular embodiments of the invention defined in claim 1, are therefore allowable (Articles 52 and 56 EPC).

The proposed corrections of errors in the remaining part of the description and the drawings are equally allowable (Rule 88 EPC).

For these reasons, it is decided that:

1. The decision of the Examining Division 077 of 20 July 1981 is set aside.

2. The case is remitted to the first instance with the order to grant a European Patent on the basis of the following documents: Description pages 1 to 4,

received on 4 November 1982, claims 1 to 5 received on 4 November 1982, description, pages 5 to 11 and drawings as filed with the corrections proposed by the applicant.

The Registrar: The Chairman:

J. Vez

P.F.